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# ***Composting Regulations***

***Presented by:***

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***Michigan Department of Environmental Quality***

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# *Definition of Yard Clippings*

According to Section 11505(9),

"Yard clippings" means leaves, grass clippings, vegetable or other garden debris, shrubbery, or brush or tree trimmings, less than 4 feet in length and 2 inches in diameter, that can be converted to compost humus. Yard clippings does not include stumps, agricultural wastes, animal waste, roots, sewage sludge, or garbage.

# *Composting Regulations Overview*

- ▣ Local Unit of Government Regulation
  - Zoning and Planning
  - Building Codes
  - Drain Commissioner
  - Roadways
  - County Health Department
- ▣ MDA
  - Fertilizer Act
  - GAAMPS
  - On-Farm Composting
- ▣ OSHA/MIOSHA
- ▣ DEQ Regulation of Yard Clippings Composting
  - Part 115, Solid Waste Regulations
  - Part 31, Water Resources
  - Part 55. Air Quality



# *Composting Regulations*

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## *Local Unit of Government Regulation*

### ❖ **Zoning/Planning Commission**

**Most local units require a permit before business commences**

**Compatibility with surrounding community**

**Site design could require a licensed professional**



# *Composting Regulations*

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## *Local Unit Regulation (con't.)*

### ❖ **Building Codes**

**Building design will require a licensed professional**

**Building permit and inspections will be required**

### ❖ **Drain Commission**

**Storm water runoff detention**

**Construction erosion control**

**Wetlands protection**



# *Composting Regulations*

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## *Local Unit Regulation (con't.)*

### ❖ roadways

Identify Spring load restrictions

Additional traffic on local roads

### ❖ County Health Departments

Respond to nuisance complaints (e.g. odor, noise)

Work with MDEQ to regulate facility operations



# *Composting Regulations*

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## *Federal/State Worker Safety Regulations*

- ❖ **MIOSHA - Worker safety concerns for both compost facility operators and incoming deliveries.**
- ❖ **OSHA - Work closely with MIOSHA to observe and prevent injury.**



# *Composting Regulations*

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## *MDEQ Regulation of Composting - Yard Clippings*

**Section 21 of Part 115 regulates the composting of yard clippings under the following conditions:**

- **Composted at the property where they came from.**
- **Temporarily accumulated section 11521(2)**
- **Composted at a farm section 11521(3)**
- **Composted at a registered composting facility section 11521(4)**
- **Composted and used at a licensed solid waste landfill**
- **Composted at a processing plant**
- **Composted at a site with no more than 200 cubic yards of yard clippings**
- **Anaerobic digesters**
- **Disposed of at a landfill if diseased or infested or are invasive**





# *Composting Regulations*

## *Registered Composting Facilities*

### **Composting facilities must:**

- Register
- Comply with location restrictions
- Not be in violation or create a site of environmental contamination
- Not have more than 5,000 cubic yards of material on any acre of property
- Not speculatively accumulate material
- Produce finished compost with not more than 1%, by weight, of foreign matter
- Debag plastic bags by the end of each business day
- Prevent the pooling of water
- Properly manage storm water runoff
- Not attract or harbor rodents or other vectors.
- Maintain records (see operational records and volume tracker handout)



# *Composting Regulations*

## *Isolation Distance Requirements*

	Facility in operation before December 1, 2007	Facility in operation after December 1, 2007
Property line	50	50
Residence	200	200
Surface water	100	100
Type I or IIA water supply well	NA	2,000
Type IIB or III water supply well	NA	800
Sensitive receptor	NA	500
Groundwater	NA	4



# *Composting Regulations*

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## *Required Record Keeping/Reporting*

- Volume of material accepted each month
- Volume of material transferred off-site each month
- Carbon-to-Nitrogen ratio of each pile
- Amount of grass and leaves in each pile
- Temperature readings
- Moisture readings
- Lab analysis of finished compost
- Yearly volume report showing volumes of compostable materials brought to site, removed from site, and on-site on a yearly basis



# *Composting Regulations*

## *Suggested Testing Requirements*

- pH
- Electrical Conductivity (i.e. soluble salts)
- Total N, P, K
- Magnesium
- Zinc
- Copper
- Boron
- Mercury
- Weed seed germination
- Pathogens (Fecal coliforms and Salmonella sp.), if manures were composted
- Maturity test (i.e. Solvita Test)
- Sulfate
- Nickel
- Selenium
- Chromium
- Molybdenum
- Carbon to Nitrogen (C:N) ratio
- Total nutrient analysis
- Arsenic
- Sodium
- Manganese
- Cadmium
- Lead
- Chloride
- Foreign matter content



# *Composting Regulations*

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## *On Farm Composting*

- A farm may accept up to 5,000 cubic yards of yard clippings and does not need to register with the DEQ or MDARD
- A farm may accept over 5,000 cubic yards and be registered with MDARD if:
  - If the yard clippings are used to manage on-farm generated wastes
  - The farm operation does not accept monetary or other valuable consideration for accepting the material
- Farms that produce a finished product that is sold to a person are considered to be commercial operations that do not have nuisance protection under the Right to Farm Act.



# *Composting Regulations*

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## *Water Regulations*

### *-Water Quality (Part 31 of Act 451)*

- ❖ Flood plain alteration
- ❖ Discharge of injurious substances into state water resources



# *Composting Regulations*

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## *Air Regulations –Part 55, Air Quality*

❖ **Rule 901 - Prohibition against releasing air contaminants that can cause:**

**Injurious effects to human health or safety, animal life, plant life of significant economic value or property, or,**

**Unreasonable interference with the comfortable enjoyment of life and property.**



# *Composting Regulations*

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## *Production Regulations - Fertilizer Act (Michigan Dept. of Agriculture)*

**License is required to manufacture and distribute fertilizer, registration, inspection of materials, records, fees**

**However, if the material produced is claimed as compost, the fertilizer label is not needed (i.e., no nutrient claims are made)**



# *Composting Regulations*

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## *Production Regulations - Fertilizer Act (Michigan Dept. of Agriculture)*

❖ If labeled as a fertilizer, the following information must be supplied

Brand or Product name, grade

Net Weight

Guaranteed analysis including % total nitrogen, % available Phosphoric acid ( $P_2O_5$ ), and % soluble potash ( $K_2O$ )

# *Composting Regulations*

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**Thank you.**

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